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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,041	02/26/2002	Stefan Vilsmeier	SCHWP0110USB	3241

7590

12/18/2002

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EXAMINER

JAWORSKI, FRANCIS J

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,041

Applicant(s)

VILSMEIER, STEFAN

Examiner

Jaworski Francis J.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6-11-01(ids).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/713,212.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 8 - 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation that the landmark prominences output images characteristic of themselves is functional in that it is narrative in form and lacks recitation of any structure to accomplish same. Additionally the landmark prominences do not literally output their own images. Additionally it is unclear how the literal term "body" relates to 'patient' and 'operation' to 'neurosurgery'.

With respect to claim 9, it is unclear how or if the determined computer tomography data bears any relationship to 'diagnostic patient data' and how or if 'mapping with infrared cameras' relates to the 'mapping' of claim 8.

With respect to claim 10 "said fasteners" lacks antecedence.

With respect to claim 11, it is unclear how or if "referencing at the operating table" relates to either 'mapping diagnostic patient data' or 'monitoring the operation' which are the candidate terminologies for which the claim 11 terminology should relate.

With respect to claim 12, "both cameras" lacks antecedence with the precedent terminology admitting of any number of cameras. Additionally "said three-dimensional positions of said reflectors" lacks antecedence since it is the 'three-dimensional coordinates of the calibration tool' which are mapped (meaning for example that in some referencing systems the coordinates of the markers are never generated since fixed offsets may be applied based upon angulations and only

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the coordinates of the actual tool are of interest e.g. if the tool is a surgical probe being position-calibrated.)

With respect to claim 13, the claim is narrative and is only inferential of the particularized structure of a graphics terminal which is presumably interconnected with the computer unit so as to display the relative positions using the angular and spacing computations therefrom. Additionally "said projected relative position" lacks antecedence.

With respect to claims 14-15, it is unclear whether the recited reflectors are the same or in addition to those recited in claim 12.

With respect to claim 16, the terminology 'preferably' is vague insofar as it offers a broad limitation (source) and narrow limitation (infrared radiation source) together such that the resulting claim does not set forth the metes and bounds of the patent protection desired.

Additionally whereas the preamble pertains to a control for use with a microscope, the body of the claim recites connection of the microscope into the combination, rendering it wholly unclear whether a controller for a surgical microscope (subcombination) or a positionally controlled microscope system (combination) are being claimed..

With respect to claim 17, "three-dimensional positioning said microscope in a first calibration" is vague and indefinite since nothing recited in the parent claim pertains specifically to the three-dimensional positioning of the microscope or to a "first calibration". Additionally "preferably" is vague and indefinite for reasons as set forth above. Additionally it is unclear how or in what claimed structure 'focussing data' arises or enters the control.

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With respect to claim 18, there is no antecedence for "said actuator motors", and noting that the microscope stand is stated to be either 'powered' or manual' in base claim 16 this limitation is very unclear. Additionally, it is unclear how or in what structure 'microscope movements and position data' arises. Additionally the control sequence recited is a method protocol and it is unclear to what structure this implementation procedure is to be imputed.

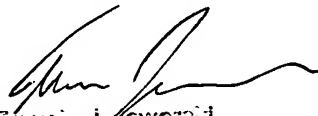
With respect to claims 19-22 the claims depends from now-cancelled claim 1 hence the scope is unclear.

The following art is cited as of interest: Gerig et al (US5446548)^{*} - camera referencing over patient position including uniquely defined fiducial sets Fig. 2, Horbal et al (US5249581) sequential polling of fiducial markers so as to provide unique definition, Johansson et al (US5320462)^{*}, Leibinger et al (US5394457)^{*} spatially specific photogrammetric markers including fastener adapter type with structural specificities. ** of record*

Any inquiry concerning this communication should be directed to Examiner Francis J. Jaworski at telephone number 703-308-3061..

FJJ:fjj

12-11-02


Francis J. Jaworski
Primary Examiner